

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A persistent memory access system, comprising:
 - a primary network persistent memory unit (nPMU) comprising:
 - a network interface communicatively coupled to at least one client processor node over a remote direct memory access (RDMA) enabled communication system; and
 - a primary region coupled to the network interface and configured to store information, corresponding to a predefined portion of a primary network persistent memory unit (nPMU) communicatively coupled to at least one client processor node via a communication system, wherein the primary region is assigned to a client process running on the client processor node and is configured to store stores information received from the client process; and
 - said primary nPMU executes single byte RDMA requests directed to the primary region, the single byte RDMA requests received through the network interface;
 - a mirror nPMU comprising:
 - a network interface communicatively coupled to the at least one client processor node and the primary nPMU over the remote direct memory access (RDMA) enabled communication system; and
 - a mirror region coupled to the network interface of the mirror nPUM and configured to store information, corresponding to a predefined portion of a mirror nPMU communicatively coupled to the client

~~processor node via the communication system,~~
~~wherein the mirror region is assigned to the client~~
~~process and is configured to store stores the~~
information received from the client process.

2. (Currently amended) The system of claim 1, ~~further comprising the~~
~~primary nPMU and the mirror nPMU,~~ wherein the primary nPMU and the mirror
nPMU are physically separate units and are characterized by separate fault
domains.

3. (Original) The system of claim 1, wherein the primary region comprises a
plurality of primary virtual addresses corresponding a plurality of physical
locations where the information is stored in the primary region, and wherein the
mirror region comprises a plurality of mirror virtual addresses corresponding to
another plurality of physical locations where the information is stored in the mirror
region.

4. (Original) The system of claim 3, wherein the primary nPMU is configured
to translate between one of the primary virtual addresses and a corresponding
client address associated with the information, and wherein the mirror nPMU is
configured to translate between one of the mirror virtual addresses and the
corresponding client address associated with the information.

5. (Original) The system of claim 4, further comprising a base pointer, the
base pointer corresponding to a difference in the primary virtual address and the
corresponding client address such that the primary nPMU translates, and wherein
the base pointer further corresponds to a difference in the mirror virtual address
and the corresponding client address such that the mirror nPMU translates.

6. (Original) The system of claim 1, further comprising metadata residing in the primary nPMU and the mirror nPMU, wherein the metadata identifies the primary region and the mirror region assigned to the client process.

7. (Original) The system of claim 6, further comprising an attribute cache, the attribute cache residing in the client processor node and corresponding to at least some attribute information in the metadata.

8. (Original) The system of claim 1, further comprising a persistent memory unit (PMU) library residing in the client processor node, wherein the PMU library comprises at least a first function configured to permit an executing process to directly write the information to the primary region and the mirror region, and a second function configured to permit the executing process to directly read the information from a selected one of the primary region or the mirror region.

9. (Original) The system of claim 8, further comprising an application program interface (API) residing in the client processor node, wherein the API causes the client process to access the functions of the PMU library in response to a request by the client process to access the information.

10. (Original) The system of claim 1, further comprising a persistent memory manager (PMM) communicatively coupled to the client processor node via the communication system, wherein the PMM responds to a request from the client process for an assignment of persistent memory, and wherein the PMM causes the primary nPMU to create the primary region and causes the mirror nPMU to create the mirror region.

11. (Original) The system of claim 1, further comprising a persistent memory manager (PMM) communicatively coupled to the client processor node via the communication system, wherein the PMM responds to a request from the client process to end an assignment of persistent memory, and wherein the PMM

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causes the primary nPMU to delete the primary region and causes the mirror nPMU to delete the mirror region.

12.-46. (Cancelled).